REMARKS

In the Office Action the Examiner rejected claims 6-23 under 35 U.S.C. 112, second paragraph, as being indefinite, rejected claims 6-23 under 35 U.S.C. 101 for being directed to non-statutory subject matter, rejected claims 6-9, 12-18, and 20 under 35 U.S.C. 102 as being anticipated. Claims 6-18 and 20-22 remain under examination.

Claim 6 was rejected for indefiniteness for not claiming the result and for not claiming an alternate "if the estimated inverse is greater" condition to the one claimed. Amended claim 6 now includes this condition and clarifies the "result." Each successive result improves resolution. The result after one iteration is correct. The next iteration also provides a correct result but with a higher resolution. As is typical of iterative processes, increasing the iterations has the effect of increasing the resolution or accuracy of the result. Claim 7 was rejected for claiming that the arithmetic function is a square root. This was primarily based on the Examiner's view of the deficiencies in claim 6 to the point that the limitations of claim 6 were ignored with respect to claim 7. The amendment to claim 6 should have clarified that the arithmetic function of claim 6 could be a square root so that that claim 7 specifying that it was a square root is proper. A similar rejection was made to claims 11 and 20 for square root and claims 12 and 17 for division. Independent claim 16 has also been amended so that it should be clear that the arithmetic function could be square root. With regard to division, amended claims 6 and 16 should be clear that the arithmetic function could be division.

The Examiner's rejection for non-statutory subject matter was based on the view that the claims were a predetermined mathematical algorithm lacking a concrete, useful, and tangible result. Amended claims 6 and 16 should now be clear that there is such a result, in particular, there is a result of an arithmetic function that is stored in a register.

The rejection for anticipation was based on Malinowski. Malinowski teaches a technique for obtaining a square root (R) that uses a base number and substracts another number (Xlast) from it as pointed out in equations 4 and 8. The base number is based on the binary width of the input operations. X(last) is a number that is obtained in an iterative process. Each iteration provides increased resolution or accuracy over the previous one. The iterations are not subsequently compared but are simply calculated based on the number whose square root is being taken. As shown in in equation 7, the next iteration (Xn+1) is simply the initial estimate plus a particular arithmetic operation of the previous iteration (Xn). At some point, there is a last

iteration to result in X(last). X(last) is then substracted from the base number to achieve the result R, subject to being multiplied by a scaling factor as in the case of equation 8, as the square root. Note that X(n) is not an estimate of the square root but rather a number to be subtracted from the base number. It is only after the substration is there an estimate of the square root as result R. The accuracy of R is based on the iterations. In view of this operation, there is no squaring (inverse of the arithmetic function) of an estimate of the square root. X(n) is squared but X(n) is not an estimate of the square root. Further Malinowksi's algorithm does not use comparisons in its iterations but simply calculations based on the number. The Examiner viewed that either 54 or 45 functioned as a comparator. Malinowski neither called either one a comparator nor described either one as a comparator. One is a mux and the other a selector. These do not function on the basis of a comparison but rather as to what the process is doing. Accordingly applicants submit that at least for these reasons, applicants' claims distinguish from Malinowski and are patentably distinct from the art of record.

The Office Action contains numerous statements characterizing the claims, the Specification, and the prior art. Regardless of whether such statements are addressed by Applicant, Applicant refuses to subscribe to any of these statements, unless expressly indicated by Applicant.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Applicants believe the application is in condition for allowance which action is respectfully solicited. Please contact the below-signed if there are any issues regarding this communication or otherwise concerning the current application.

Respectfully submitted,

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